

AlphaServer™ 8000 systems

Breakthrough servers that set a new pace for business-critical applications

ALPHA™

GENERATION

DATAMATION

PRODUCT

OF THE

YEAR 1996

IS Managers' Choice

Servers that surpass the performance of a mainframe, at a fraction of the cost — Digital's 64-bit AlphaServer 8000 systems. Now you can reap the rewards of increased productivity and cost savings from a superior platform that only Digital can provide. Enhance your leadership and competitive position with applications powered by award-winning AlphaServer 8000 systems.

At a glance

• Best applications

- > Complex data warehousing/decision support
- > Large business, manufacturing, and financial applications
- > High-performance technical computing applications
- > Sophisticated telecommunications applications
- > Large-scale database management
- > Very large capacity Internet server

AlphaServers 8200 and 8400 — enterprise servers that break all the barriers.

•

The world's fastest enterprise server providing better-than-mainframe and supercomputer performance at a fraction of the cost

- > 437 MHz Alpha processor, the world's fastest
- > 64-bit RISC architecture for very high throughput and capacity

•

The world's fastest cluster

- > UNIX® TruCluster Solutions™ — 30,390 rpmC® @ \$305/tpmC

•

Scalability to grow as your applications demand

- > Symmetric multiprocessing (SMP) and VLM64; up to 12 processors, 28 GB memory, 39 TB storage and beyond
- > UNIX TruCluster Solutions
- > OpenVMS™ clustering

•

High-availability computing for minimum downtime

- > UNIX TruCluster Solutions
- > OpenVMS clustering
- > Highly reliable and available Alpha platform
- > High-integrity data storage

•

Investment protection

- > Compatibility across entire 64-bit AlphaServer family
- > Easy, cost-effective processor and component upgrades
- > Industry-standard I/O, networking, storage, and peripherals



"Digital's AlphaServer 8000 has become a consistent leader in high-end commercial performance and price/performance. The affordable power shown in the latest TPC-C tests translates into tangible benefits for today's savvy server buyers and their applications."

Peter Kastner, Vice President, Aberdeen Group

Digital's AlphaServer 8000 systems deliver better-than-mainframe-class speed and performance at a mere fraction of the price. No one else can make that claim — but then, no one else has the AlphaServer 8000 systems' high-performance architecture ... their lightning-quick Alpha processors ... their 64-bit VLM64 technology.

For your most demanding commercial and technical applications, there isn't a faster, more powerful open client/server system on the market than an AlphaServer 8000 system. These systems deliver commercial performance all the way up to 30,390 tpmC and beyond.

Running with the right crowds

From large corporations to small start-ups, wherever high-powered productivity is demanded, you'll find AlphaServer 8000 systems breaking speed records.

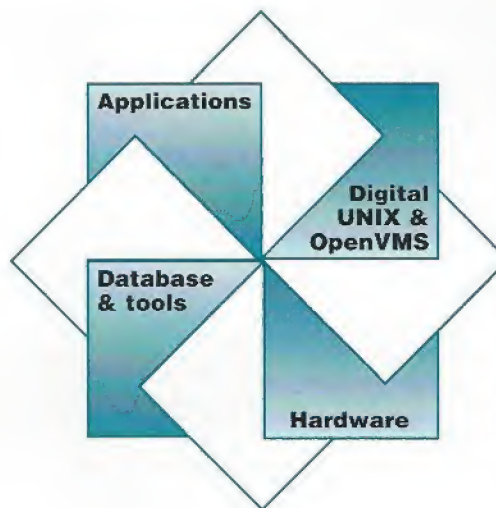
With AlphaServer systems at the core of your Alpha Warehouse™, you can scream through your marketing data in nearly no time, thanks to alliances with leading applications and database providers such as ORACLE®, SYBASE®, INFORMIX®, SAS®, and Software AG. (In fact, the AlphaServer 8400 system was among the first servers in the industry to earn Oracle's

Warehouse Test-to-Scale Certificate.) The AlphaServer 8400 system has demonstrated leadership results for a single system in all three dimensions of the TPC-D® benchmark — the industry standard benchmark for decision support applications — that measures power, throughput, and cost: QppD (864.3) and QthD (445.4), at a cost of \$2,170.37/QphD. Digital sets the industry standard with our Alpha Warehouse solutions.

For enterprise resource planning applications such as A/P, A/R, G/L, asset management, and payroll, no other system outruns the AlphaServer 8000 servers in application suites like SAP R/3.

In the rapidly expanding telecommunications field, AlphaServer 8000 systems are ideal for running your customized and demanding applications, from sophisticated fraud detection database software to cellular billing packages.

And of course, the technical crowd is already familiar with AlphaServers' supercomputer-like power. Finite element analyses, computational fluid dynamics, molecular modeling, and high-end MCAD and ECAD applications are being simulated and rendered at blinding speed.



Digital's exclusive VLM64 technology gives you high-performance 64-bit computing in every direction to meet your most demanding business needs.

If your need is speed ...

If you're looking to get more information to more users in less time (and who isn't), strap on an AlphaServer 8000 system and hold on tight. The Alpha processor continues to be the world's fastest — now up to 437 MHz — and most affordable. The systems' 64-bit RISC architecture runs today's most complex applications without breaking a sweat.

How high is up?

Scalability has been redefined. AlphaServer 8000 architecture is designed for expansion and very high throughput, with single-system specs such as 28 GB of memory, 39 TB of disk storage and beyond mainframe-class I/O bandwidth at 1200 MB/sec.

Digital's exclusive 64-bit Very Large Memory (VLM64) addresses up to 28 GB of memory for a single application — far higher than the 2 GB ceiling of 32-bit systems. That means you can dump entire applications and huge portions of your database into physical memory. And, with minimal disk I/O standing in the way, you can speed through financial modeling and data warehousing

operations hundreds of times faster than you are now.

The only way to benefit from VLM64 technology is to have a complete 64-bit computing environment: system, operating system, middleware, database applications, and development tools. This leadership VLM64 technology is only available from Digital and its partners.

Clustering: No-compromise computing

If you think the AlphaServer solutions can't get more impressive, think clustering. Connect a series of AlphaServer systems with either Digital's TruCluster Solutions and PCI to Memory Channel Interconnect or OpenVMS cluster software. You'll have a combination that's been heretofore unattainable: accelerated throughput without changing architectures, and increased availability (if one system goes down, the others quickly take over processing) with no need to switch operating systems, ports, or software ... all at lower cost. We call it no-compromise computing. You'll call it remarkable, shattering the barriers to scalability, availability, and affordability.

"We selected the Digital/Oracle/UNIX solution because of its superior performance, flexibility, and growth potential, at one-tenth the cost of competing systems."

*William S. Watson, Executive Vice President,
Best Western International*

"The line of servers that is turning heads is from the comeback kid of the computer industry, Digital Equipment Corp ... In benchmarks, the Alpha systems can make the competition look miserable."

Computerworld Magazine

Speaking of availability ...
Clustering isn't the only way that these systems maximize uptime. Since no one can afford downtime, every AlphaServer 8000 system has built-in features for reliability and availability. Internal error checking and correcting are standard, as are high-data-integrity Storage-Works™ storage subsystems and RAID (which let users cost-effectively organize disk data to improve data performance, integrity, and security), hot swap disks, N+1 power, and auto reboot.

Your growth is ensured
Thanks to an open scalable modular platform, you can easily upgrade an AlphaServer 8000 system simply by adding system boards, processors, memory, and storage. You can enhance the rest of your systems just as easily, since the system is based on industry-standard I/O, networking, storage, and peripherals.

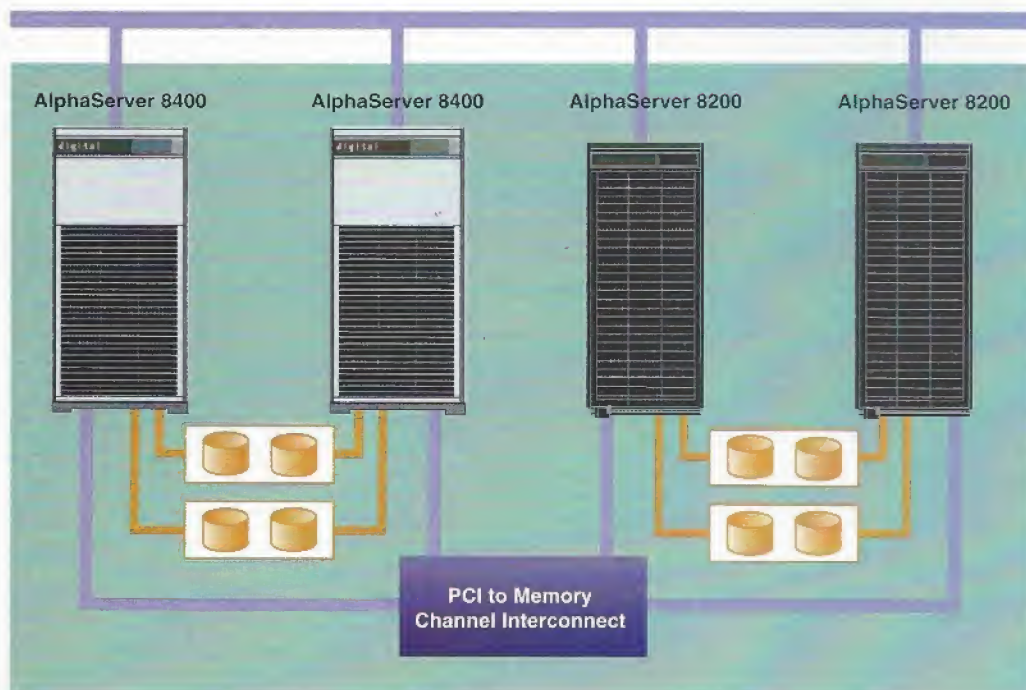
When you invest in Digital AlphaServer 8000 systems, you're investing in technology that's leading the industry ... and leading the way into 21st century computing. Alpha technology is here to stay, as Digital continues to exhibit the technological leadership that has been our trademark for more 35 years.

We stand by you
A 1-year on-site hardware product warranty is standard on the AlphaServer 8000 systems, and so is installation on the Model 5/440 system. If you need support or service, count on Digital to respond within four hours. You can also rely on Digital – the recognized leader in multivendor services – to stand by you with consulting, technical, and support professionals.

A range of services
Digital offers three AlphaServer Support Plans (100, 300, and 500) to help you put in place the most cost-efficient and appropriate services for your AlphaServer 8000 system. Each plan consists of a recommended and modular suite of preventative, remedial, and recovery services to meet your availability needs.

Your next step
Looking for an open server solution that delivers main-frame performance at a fraction of the cost? Consider the AlphaServer 8000 systems. For information by fax, call 1-800-DIGITAL via a touch-tone phone in the U.S. or Canada, or 1-908-885-6426 outside the U.S. and Canada. For online product information, including how to order, visit Digital's AlphaServer Home Page on the Internet at <http://www.digital.com/info/alphaserver>

Cluster AlphaServer 8200 and 8400 systems with Digital's TruCluster Solutions to set up a highly reliable, highly available environment with outstanding growth capability.





AlphaServer 8000 Systems	8200 5/300 & 5/440	8400 5/300 & 5/440
CPU Features		
No. of processors	Up to 6	Up to 12
Alpha CPU/clock speed	21164/300 MHz 21164A/437 MHz	21164/300MHz 21164A/437 MHz
Cache size (on chip/on board)	8 KB I-cache, 8 KB D-cache, 96 KB combined /4 MB per processor	8 KB I-cache, 8 KB D-cache, 96 KB combined /4 MB per processor
In-cabinet upgrades	CPU, memory, storage	CPU, memory, storage
Performance		
TPC-D		QppD 864.3, QthD 445.4 @ \$2,170.37/QphD
tpmC @ \$/tpmC	7,426 @ \$235* □	11,014 @ \$222/14,227 @ \$269** □
SPECfp95® SMP	/31.4* □	38.5** /42.6**
SPECint92®	341.4/555.1	341.4/555.1
SPECint95®	7.43/13.6	7.43/13.6
SPECfp92®	512.9/708.6	512.9/708.6
SPECfp95	12.4/16.2	12.4/16.2
Max. SPECint_rate95®	388/701	767/1,358
Max. SPECfp_rate95®	420/588	919/1,118
LINPACK NxN	Up to 2,445/up to 3,337	Up to 4,996/up to 6,654
I/O Features		
Max. memory	12 GB	28 GB
Max. disk (in cabinet/total)	160 GB/over 39 TB	192 GB/over 39 TB
Max. I/O bandwidth	1200 MB/sec.	1200 MB/sec.
I/O support	Up to 132 PCI slots, up to 8 EISA slots	Up to 144 PCI slots, up to 8 EISA slots, XMI, Futurebus+□
Network options	Ethernet, FDDI, Token Ring, Synchronous Communications, HiPPI, Fiber Channel	
I/O options	CI (OpenVMS), IPI, SCSI-2, RAID, DSSI (OpenVMS), Prestoserve® (Digital UNIX)	
Availability		
OpenVMS Clusters	Ethernet, DSSI, FDDI, CI	
UNIX Clusters	TruCluster Solutions, DECsafe™ ASE, Parallel Software Environment (including PCI to Memory Channel™ Interconnect)	
High-Availability Features	Auto reboot, thermal management, optional redundant power system, remote system management, RAID, disk hot swap, memory failover, ECC memory, ECC cache, SMP CPU failover, error logging, optional battery backup, optional UPS	
Software		
Operating Systems	Digital UNIX, OpenVMS	
Packaging		
Enclosure	Cabinet, Rackmount	

*Six CPUs **Eight CPUs □Model 5/350

Features may differ among operating environments. Performance may vary depending on configuration, application, and operating environment.

Digital believes the information in this publication is accurate as of its publication date. Such information is subject to change without notice. Digital is not responsible for any inadvertent errors.

Digital conducts its business in a manner that conserves the environment and protects the safety and health of its employees, customers, and the community.

Digital, the Digital logo, AlphaGeneration design mark, AlphaServer, Alpha Warehouse, DECsafe, OpenVMS, TruCluster Solutions and StorageWorks are trademarks of Digital Equipment Corporation.

Memory Channel is a trademark of Encore Computer Corporation. Prestoserve is a trademark of Legato Systems, Inc. Futurebus is a registered trademark of Force Computers GmbH, Fed. Rep. of Germany. INFORMIX is a registered trademark of INFORMIX Software, Inc. ORACLE is a registered trademark of ORACLE Corporation. SAS is a registered trademark of SAS Institute, Inc. SPEC, SPECint92, SPECint95, SPECfp92, SPECfp95, SPECint_rate95 and SPECfp_rate95 are registered trademarks of the Standard Performance Evaluation Corporation. SYBASE is a registered trademark of SYBASE, Inc. tpmC is a registered trademark of the Transaction Processing Performance Council. TPC-D is a registered trademark. UNIX is a registered trademark in the U.S. and other countries, licensed exclusively through X/Open Company Ltd.

The PCI to Memory Channel Interconnect includes technology licensed from Encore Computer Corporation.